



<110> GICQUEL, BRIGITTE
BERTHET, FRANCIOS-XAVIER
ANDERSEN, PETER
RASMUSSEN, PETER BIRK

<120> POLYNUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM
MYCOBACTERIUM TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE
FRAGMENTS, AS WELL AS METHODS USING THE SAME

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<160> 34

<170> PatentIn version 3.3

<210> 1

<211> 1277

<212> DNA

<213> Mycobacterium tuberculosis

<400> 1

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ggtccgggag cgatgggcca gggttcgcaa tccggcgggt ccaccagccc gggctctggc	360
gcgccggcac cgctcgcgca ggagcgtgaa gaagacgacg aggacgactg ggacgaagag	420
gacgactggt gagtccccgt aatgacaaca gacttcccgg ccaccggggc cggaagactt	480
gccaacattt tggcgaggaa ggtaaagaga gaaagtagtc cagcatggca gagatgaaga	540
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<210> 2
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 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 2	
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gcgccggcac cgctcgcgca ggagcgtgaa gaagacgacg aggacgactg ggacgaagag	420
gacgactggt gagtcccgt aatgacaaca gacttcccgg ccaccgggc cggaagactt	480
gccaacattt tggcgaggaa ggtaaagaga gaaagtagtc cagc	524

<210> 3
 <211> 481
 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 3
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 g 481

<210> 4
 <211> 302
 <212> DNA
 <213> Mycobacterium tuberculosis

<400> 4
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 ggccagtggc gcggcgcggc ggggacggcc gcccaggccg cggtggtgcg cttccaagaa 180
 gcagccaata agcagaagca ggaactcgac gagatctcga cgaatattcg tcaggccggc 240
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 tg 302

<210> 5
 <211> 100
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 5

Met Ala Glu Met Lys Thr Asp Ala Ala Thr Leu Gly Gln Glu Ala Gly
 1 5 10 15

Asn Phe Glu Arg Ile Ser Gly Asp Leu Lys Thr Gln Ile Asp Gln Val
 20 25 30

Glu Ser Thr Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly
 35 40 45

Thr Ala Ala Gln Ala Ala Val Val Arg Phe Gln Glu Ala Ala Asn Lys
 50 55 60

Gln Lys Gln Glu Leu Asp Glu Ile Ser Thr Asn Ile Arg Gln Ala Gly
 65 70 75 80

Val Gln Tyr Ser Arg Ala Asp Glu Glu Gln Gln Gln Ala Leu Ser Ser
 85 90 95

Gln Met Gly Phe
 100

<210> 6
 <211> 49
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 6

Met Ala Glu Met Lys Thr Asp Ala Ala Thr Leu Gly Gln Glu Ala Gly
 1 5 10 15

Asn Phe Glu Arg Ile Ser Gly Asp Leu Lys Thr Gln Ile Asp Gln Val
 20 25 30

Glu Ser Thr Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly
 35 40 45

Thr

<210> 7
<211> 42
<212> PRT
<213> Mycobacterium tuberculosis

<400> 7

Gln Glu Ala Ala Asn Lys Gln Lys Gln Glu Leu Asp Gly Ile Ser Thr
1 5 10 15

Asn Ile Arg Gln Ala Gly Val Gln Tyr Ser Arg Ala Asp Glu Glu Gln
20 25 30

Gln Gln Ala Leu Ser Ser Gln Met Gly Phe
35 40

<210> 8
<211> 21
<212> PRT
<213> Mycobacterium tuberculosis

<400> 8

Gln Glu Ala Gly Asn Phe Glu Arg Ile Ser Gly Asp Leu Lys Tyr Thr
1 5 10 15

Gln Ile Asp Gln Val
20

<210> 9
<211> 16
<212> PRT
<213> Mycobacterium tuberculosis

<400> 9

Gly Asp Leu Lys Thr Gln Ile Asp Gln Val Glu Ser Thr Ala Gly Ser
1 5 10 15

<210> 10
<211> 16
<212> PRT
<213> Mycobacterium tuberculosis

<400> 10

Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly Thr Ala Ala Gln
 1 5 10 15

<210> 11
 <211> 16
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 11

Gln Glu Ala Ala Asn Lys Gln Lys Gln Glu Leu Asp Glu Ile Ser Thr
 1 5 10 15

<210> 12
 <211> 28
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 12

Ser Thr Asn Ile Arg Gln Ala Gly Val Gln Tyr Ser Arg Ala Asp Glu
 1 5 10 15

Glu Gln Gln Gln Ala Leu Ser Ser Gln Met Gly Phe
 20 25

<210> 13
 <211> 16
 <212> PRT
 <213> Mycobacterium tuberculosis

<400> 13

Arg Ala Asp Glu Glu Gln Gln Gln Ala Leu Ser Ser Gln Met Gly Phe
 1 5 10 15

<210> 14
 <211> 21
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

<400> 14
ctgcagcagg tgacgtcggt g 21

<210> 15
<211> 23
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 15
ccgggtggcc ggaagtctg tgt 23

<210> 16
<211> 23
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 16
actactttct ctttctacct tcc 23

<210> 17
<211> 39
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 17
gggggatcc ggtaccaggt gacgtcggtg ttcagccag 39

<210> 18
<211> 39
<212> DNA
<213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

 <400> 18
 ggggggtacc ggatcctcgt agtcggccgc catgacaac 39

<210> 19
 <211> 31
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

 <400> 19
 ggggggatcc caggtgacgt cgttgttcag c 31

<210> 20
 <211> 31
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

 <400> 20
 ggggggtacc acggtgacgt cgttgttcag c 31

<210> 21
 <211> 32
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

 <400> 21
 ggggggtacc aacggtgacg tcgttgttca gc 32

<210> 22
<211> 31
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 22
gggggggtacc ggggtggccgg gaagtctggt g

31

<210> 23
<211> 31
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 23
gggggggatcc ctgcagcagg tgacgtcggt g

31

<210> 24
<211> 30
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 24
ccctgcaacg aacctgccgt cgactccacc

30

<210> 25
<211> 39
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature

<223> Description of Artificial Sequence: synthetic DNA

<400> 25
gggggggatcc ggtaccaggt gacgtcgttg ttcagccag

39

<210> 26
<211> 51
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 26
gggggggatcc tcaatgggtga tggatgatggg ggaagcccat ttgcgaggac a

51

<210> 27
<211> 22
<212> DNA
<213> Artificial/Unknown

<220>
<221> misc_feature
<223> Description of Artificial Sequence: synthetic DNA

<400> 27
gcatcgaatg catgtctcgg gt

22

<210> 28
<211> 99
<212> PRT
<213> Mycobacterium leprae

<400> 28

Met Ala Glu Met Ile Thr Glu Ala Ala Ile Leu Thr Gln Gln Ala Ala
1 5 10 15

Gln Phe Asp Gln Ile Ala Ser Gly Leu Ser Gln Glu Arg Asn Phe Val
20 25 30

Asp Ser Ile Gly Gln Ser Phe Gln Asn Thr Trp Glu Gly Gln Ala Ala
35 40 45

Ser Ala Ala Leu Gly Ala Leu Gly Arg Phe Asp Glu Ala Met Gln Asp
 50 55 60

Ile Arg Gln Leu Glu Ser Ile Val Asp Lys Leu Asn Arg Ser Gly Gly
 65 70 75 80

Asn Tyr Thr Lys Thr Asp Asp Glu Ala Asn Gln Leu Leu Ser Ser Lys
 85 90 95

Met Asn Phe

<210> 29
 <211> 108
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: Expression cassette

<400> 29
 aggaacagat ctatgggatc cggtaccctg cagcatcacc atcaccatca ctagtgaaat 60
 agcgaaacac gggatcgggc gagttcgacc ttccgtcggt ctgcgcct 108

<210> 30
 <211> 13
 <212> PRT
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: expression tag

<400> 30

Met Gly Ser Gly Thr Leu Asn His His His His His His
 1 5 10

<210> 31

<211> 57
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: Mutliple cloning site

<400> 31
 gaattcgagc tcggtacccg gggatcctct agagtcgacc tgcaggcatg caagctt 57

<210> 32
 <211> 30
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

<400> 32
 cccggatcct cagccaagct gaccgacctg 30

<210> 33
 <211> 33
 <212> DNA
 <213> Artificial/Unknown

<220>
 <221> misc_feature
 <223> Description of Artificial Sequence: synthetic DNA

<400> 33
 gccggtacca cgacggctca tcgccagttt gcc 33

<210> 34
 <211> 15
 <212> PRT
 <213> Mycobacterium tuberculosis

<220>
 <221> misc_feature
 <223> Xaa is any amino acid

<220>
<221> misc_feature
<222> (11)..(11)
<223> Xaa can be any naturally occurring amino acid

<400> 34

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1				5					10					15